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RESTRICTION AND PREVENTION

 \mathbf{or}

SCARLET FEVER.

DOCUMENT ISSUED BY THE

STATE BOARD OF HEALTH OF MICHIGAN.



RESTRICTION AND PREVENTION OF SCARLET FEVER.

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Scarlet Fever is now believed to be one of the most contagious diseases.* One attack usually prevents subsequent attacks. The greatest number of deaths from this disease are of children under ten years of age. Adult persons do sometimes have the disease. Scarlet Fever is believed to arise from a special contagium or poison which may be conveyed, to persons previously unaffected, by personal contact, by infected clothing or paper rags, or by any of the discharges from the body of a person affected with the disease.

The discharges from the throat, nose, and mouth are considered extremely dangerous, but those from the skin, eyes, ears, kidneys and bowels, are also dangerous, and remain so for a considerable time.

Filth, all forms of uncleanness, and neglect of ventilation increase the danger of spreading the disease.

Communication.—It is believed that the disease may be communicated by a person recovering therefrom so long as the usual subsequent scaling or peeling of the skin continues, which sometimes is not completed before the lapse of seventy or eighty days, although usually completed sooner.

The interval of time which may elapse after exposure to the contagium of scarlet fever and during which a susceptible person so exposed may expect to be taken sick with the disease, varies from one to fourteen days.

Separation of the sick from the well. Whenever a child has sore throat and fever, and especially when this is accompanied by a rash on the body, the child should be immediately isolated as completely as possible from other members of the household, and from other persons, until a physician has seen it and determined whether it has scarlet fever. All persons known to be sick with this disease should be promptly and thoroughly isolated from the public.

^{*}This disease is sometimes called "Scarlatina," "Scarlet Rash," "Canker Rash," etc.

That this is of more importance than in the case of small-pox is indicated by the the fact of the much greater number of cases of sickness and of deaths from scarlet fever,—a disease in which there is no such preventive known as vaccination.

The room into which one sick with this disease is placed should previously be cleared of all needless clothing, earpets, drapery, and other materials likely to harbor the poison of the disease, except such articles as are essential to the well-being of the patient. The sick room may have no earpet, or only pieces which can afterwards be destroyed. Provision should be made for the introduction of a liberal supply of fresh air and the continual change of the air of the room without sensible currents or drafts.

Pockethandkerchiefs, that need to be saved, should not be used by the patient; small pieces of rag should be substituted therefor, and after being once used should be immediately burned.

Soiled bed and body linen should be placed in vessels of water containing chlorinated soda, chlorinated lime, or other disinfectant before removal from the sick room.

For this purpose chlorinated soda is the neatest, and most convenient because it can be used with soap, but it is apt to lose its disinfecting properties by age. Chlorinated lime if used too freely may destroy articles of clothing with which it comes in contact, but if properly used it is the safest as a disinfectant.

The discharges from the patient should all be received into vessels eontaining ehlorinated lime (commonly ealled "ehloride of lime,") sulphate of iron, or some other known disinfectant,* and the same buried at once, and not by any means be thrown into a running stream, nor into a cesspool, or water closet, except after having been thoroughly disinfected. All vessels should be kept scrupulously clean and disinfected.

Perfect cleanliness of nurses and attendants should be enjoined and secured. As the hands of nurses of necessity become frequently contaminated by the poison of the disease, a good supply of towels and two basins—one containing solution of chlorinated soda (Labaracque's solution) chlorinated lime or other disinfecting solution, and another for plain soap and water, should be always at hand and freely used.

Persons who are attending upon children or other persons suffering from Searlet Fever, and also the members of the patient's family, should not mingle with other people nor permit the entrance of children into their house.

 $^{^*}$ Carbolic acid in dilute form as generally used is not believed to be a disinfectant.

Funerals of those dying from Scarlet Fever should be strictly private and the corpse not exposed to view. To avoid mistakes, notices of such deaths in the papers should state that the deceased died of Scarlet Fever.

All persons recovering from Scarlet Fever should be considered dangerous, and therefore should not attend school, church, or any public assembly, or use any public conveyance, so long as any scaling or peeling of the skin, soreness of the eyes or air passages, or symptoms of dropsy remain. No person recovering from Scarlet Fever should thus endanger the public health nor appear in public until after having taken four times, at intervals of two days, a thorough bath. This cleansing, however, should be deferred until the physician in charge considers it prudent. After recovery from Scarlet Fever, no person should appear in public wearing the same clothing worn while sick with or recovering from this disease, except such clothing has been thoroughly disinfected by some such method as herein specified.

Gaseous disinfection, or fumigation, can only be completely and entirely effectual in the absence of living persons, as fumes strong enough for the purpose are destructive of human life. This need not deter from doing so much as is possible, without injury to sick persons, for the purification of the air of rooms occupied by them,—a liberal supply of pure air should be secured; but after the sick have recovered, the room, furniture, and other contents not to be destroyed, should be thoroughly exposed for several hours to strong fumes of chlorine gas, or to fumigation by burning sulphur; or the paper on the walls, if any, removed and burnt, the furniture scrubbed or polished, and the room thoroughly scrubbed and whitewashed.

When a room and contents are to be disinfected, all articles therein should be spread out so as to expose the greatest amount of surface to the action of the disinfectant, and all openings to the room should be closed.

To generate Chlorine, take peroxide of manganese (to be obtained at any drug store), place in an earthen dish and add one pound of hydrochloric acid (sometimes called muriatic acid), to each four ounces of the peroxide of manganese. Carc should be taken not to inhale the gas. After being certain that continuous evolution of chlorine has been secured, leave the room and close the door of exit.

The bleaching properties of chlorine may destroy the color of colored goods exposed to it, but as a disinfectant it is one of the best.

To generate Sulphurous Acid gas, put live coals on top of ashes in a metallic pan, and place on the coals sulphur in powder or fragments.

A convenient way is to place the coals and sulphur on a heated stove plate or cover turned bottom upward in a pan half filled with ashes. To disinfect 100 cubic feet of air requires the thorough combustion of about one and one-half ounces of sulphur.

Rooms should be kept closed and subjected to the action of the disinfecting gas for six or eight hours, and afterwards thoroughly aired by opening doors and windows.

Heat as a disinfectant.—It is believed that heat sufficient to be disinfectant for this disease may be secured without destroying ordinary articles of clothing, say at 240° to 250° F.

In eities and villages it may be practicable for the local boards of health to provide a central disinfecting oven or room where a large amount of material may be carried, in a closed conveyance, from houses where the disease has prevailed, and, after disinfection by heat under the direction of some competent officer of the board, returned in another conveyance to the owners. For certain articles, this may well supplement the gaseous disinfection at private houses, which cannot in every case be conveniently and thoroughly applied to all articles.

Whenever a case of this disease occurs in a locality, prompt and vigorous action should be taken for the restriction of the disease, by early isolation of those sick with the disease, and by the destruction or disinfection of all articles likely to be infected.

Plain and distinct Notices should be placed upon the premises or house in which there is a person sick with Scarlet Fever, and no child that has not had the disease should be allowed to enter, or to associate with persons who do enter such house or room.

Householders, Physicians, and Boards of Health, have duties to the public, some of which are specified in sections 1734, 1735, 1732, and 1695 of the Compiled Laws of Michigan, 1871, as follows:

"(1734.) SEC. 43. Whenever any householder shall know that any person within his family is taken siek with the small-pox or any other disease dangerous to the public health, he shall immediately give notice thereof to the Board of Health, or to the health officer of the township in which he resides; and if he shall refuse or neglect to give such notice, he shall forfeit a sum not exceeding one hundred dollars."

"(1735.) SEC. 44. Whenever any physician shall know that any person whom he is ealled to visit is infected with the small-pox, or any other disease dangerous to the public health, such physician shall immediately give notice thereof to the Board of Health or health officer of the township in which such diseased person may be; and every physician who shall refuse or neglect to give such notice, shall forfeit, for each offense, a sum not less than fifty nor more than one hundred dollars."

"(1732.) SEC. 41. When the small-pox, or any other disease dangerous to the public health, is found to exist in any township, the board of health shall use all possible

care to prevent the spreading of the infection, and to give public notice of infected places to travelers, by such means as in their judgment shall be most effectual for the common safety."

(1695.) Sec. 4. The said board shall also make such regulations as they may deem necessary for the public health and safety, respecting any articles which are capable of containing or conveying any infection or contagion, or of creating any sickness, when such articles shall be brought into or conveyed from, their township, or into or from any vessel; and if any person shall violate any such regulation, he shall forfeit a sum not exceeding one hundred dollars."

The prompt and efficient action of local Boards of Health relative to infected clothing and other articles is further specified in sections 1710, 1711, and 1713, Compiled Laws of Michigan, 1871.

The general laws of this State provide that the mayor and aldermen of cities, and the president and council or trustees of villages "Shall have and exercise all the powers, and perform all the duties of a board of health as provided in this chapter." This is in chapter 46, sec. (1740) 49, Compiled Laws of 1871, from which chapter all of the foregoing sections are taken. See also in Laws of Mich., 1873, the general act for the incorporation of cities, chapter XIV., sections 1, 7 and 8.

It therefore appears that, except possibly some special charter may exempt a city or village, the foregoing provisions of law are probably applicable and in force in the cities and villages, as well as in all the townships, throughout the State

State.

The local Board of Health and the physician in charge of cases of this disease should co-operate for its restriction. The local Board of Health should particularly guard against its spread by cases where no intelligent physician is employed.

All clothing, carpets, curtains, furniture, and other substances that are to be destroyed should be dealt with in a way to avoid conveying the poison to any person in the process; they should not be simply thrown away, or into some stream or body of water; and if burned should be completely burned and not simply heated or dealt with in a way to diffuse the poison of the disease.

All such infected substances, which are not destroyed, should be thoroughly boiled, subjected to a dry heat of 250° F. in a closed room or disinfecting oven, or be thoroughly exposed to fumes of chlorine or of burning sulphur. Books and furs that have been used or handled by those convalescing from this disease are particularly liable to convey the poison to children who have never had the disease. Great care should be used to thoroughly disinfect any such articles that are not destroyed; and caution should be exercised before allowing children who have not had Scarlet Fever to handle any such articles that have been used by persons liable to communicate the disease.

Fresh air.—Although not so active for the destruction of the contagium as is chlorine or sulphurous acid gas, pure air, in liberal amount, is a very useful and important agent for the dilution and destruction of the poison of the disease; it should be employed

freely; but with this as with other procedures for the safety of the unaffected, great care should be taken not to increase the danger to those already sick from any cause, who are usually endangered by exposure to drafts of cold air, and this is especially true of persons convalescing from Scarlet Fever.

With the view of lessening the number of eases of and deaths from Searlet Fever in Miehigan, the foregoing is published by the STATE BOARD OF HEALTH for distribution throughout the State. Physicians being to some extent the custodians, and as a matter of fact, effective conservators of the public health, eopies of this document are also sent to the physicians in Miehigan, in the hope and with the expectation that they will aid in diffusing among the people such knowledge of the nature of Searlet Fever as will enable the people better to co-operate with them and with Boards of Health for the restriction of the disease and a decrease of sickness and deaths therefrom.

Any communication upon the subject may be addressed to: Office of STATE BOARD OF HEALTH, LANSING, MICHIGAN.

Lansing, Mieh., April, 1877.

Please read this with sufficient care to remember the principles involved, and then preserve it for future reference.